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Study on shifting cultivation and the socio-cultural integrity of indigenous peoples

Note by the Secretariat

Summary

At its tenth session in 2011, the Permanent Forum appointed Raja Devasish Roy, Bertie Xavier and Simon William M'Vidouboulou, members of the Forum, to conduct a study on shifting cultivation and the socio-cultural integrity of indigenous peoples, to be submitted to the Forum at its eleventh session in 2012.**

The present study assesses the importance of the various traditions, practices and usages of shifting cultivation in different parts of the world to the maintenance and protection of the socio-cultural integrity of indigenous peoples, including aspects of their identity as distinct peoples, their spirituality, history, traditions, democratic decision-making norms, social unity, community self-help practices, literature, music, dance and numerous other aspects of their culture that are intricately linked to shifting cultivation traditions and practices. These are vital not only to protect their social and cultural rights but are also closely related to their economic, civil and political rights.

In a wider context, shifting cultivation is also closely related to forest protection, sustainable forest management, the protection of watersheds, the conservation of headwaters of rivers and streams and the maintenance of biological and linguistic diversity.

* E/C.19/2012/1.

** See E/2011/43, para. 98. The authors would like to thank the Food and Agriculture Organization of the United Nations (FAO), government officials of various departments of agriculture and forests, indigenous peoples and their communities and researchers for extending their support for the present study.

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The study concludes that the practice of shifting cultivation needs to be maintained, strengthened and promoted in its sustainable forms, in accordance with the rights acknowledged in the United Nations Declaration on the Rights of Indigenous Peoples, Convention No. 169 of the International Labour Organization (ILO) on indigenous and tribal peoples of 1989, ILO Convention No. 107 and Recommendation No. 104 on indigenous and tribal populations of 1957, and ILO Convention No. 111 on discrimination in respect of employment and occupation.

The study also seeks to address some of the myths, misinformation and misconceptions that have been associated with the practice of shifting cultivation, based on a lack of understanding of the nuanced differences in the way shifting cultivation has been and is still practised today in Central America, South America, Africa and Asia.

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I. Basic features of shifting cultivation

1. Shifting cultivation, also known as swidden cultivation, rotational agriculture and slash-and-burn cultivation, is a traditional rain-fed form of cultivation practised in tropical and subtropical forest lands worldwide. Shifting cultivation involves the cutting and burning of vegetation, and hence it is pejoratively referred to as slash-and-burn agriculture. Traditional or integrated shifting cultivation have been defined as "the form in which indigenous communities clear and cultivate secondary forests and leave parcels to regenerate naturally over fallow periods of medium to long duration".[1] Such integral cultivation systems need to be distinguished from partial systems.[2] Partial systems "reflect predominantly only the economic interest of its participants (as some kind of cash crop, resettlement and squatter agriculture)", while integral systems "stem from a more traditional, year-round, community-wide, largely self-contained and ritually-sanctioned way of life".[2] The present study focuses on the integral shifting cultivation system, which is a way of life for indigenous peoples. The terms shifting cultivation and swidden cultivation will be used interchangeably throughout the study.

2. Shifting cultivation does not involve irrigation, high inputs of capital or highly technical tools and implements, although simple water and soil management techniques may be followed to divert water channels and to reduce soil run-off through contours of wood or other locally available material.[3] In its traditional form, this mode of cultivation does not involve the use of commercially produced fertilizers and pesticides. Most traditional forms of shifting cultivation involve the cutting of vegetation, usually excluding the larger trees, in the dry season preceding the rains, after which the cut vegetation is left to dry for a few weeks.[4] This is followed by the burning of the cut and dried vegetation, with the ash acting both as fertilizer and pesticide. With the onset of the first rain of the season, seeds of different species of food, including grains such as rice and corn, are planted in small holes in the ground with a blunt metallic knife or dibble stick.

3. The dibbled holes are small, and the work involved in loosening the soil in shifting cultivation is far less than that in hoeing and ploughing. Moreover, hoes and ploughs cause far more soil erosion, particularly on sloping land. After the seedlings germinate, the shoots and plants are tended to, the ground weeded and birds and animals are scared away. Harvesting occurs at different times, depending on the variety of plants and on the climatic system of the region. In South and South-East

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[1] See K. P. Aryal and E. E. Kerkhoff, "The right to practise shifting cultivation as a traditional occupation in Nepal", International Labour Organization (ILO), 2008, citing S. Fujisaka, L. Hurtado and R. Uribe, "A working classification of slash-and-burn agricultural systems", in *Agroforestry Systems*, vol. 34 (1996).

[2] See Harold C. Conklin, *Hanunoo Agriculture: A Report on an Integral System of Shifting Cultivation in the Philippines*, Rome: Food and Agriculture Organization of the United Nations (FAO) (1957), as cited in Christian Erni (ed.), *Indigenous Affairs: Shifting Cultivation*, International Work Group for Indigenous Affairs, Copenhagen (2005).

[3] See B. K. Royburman, "An overview of shifting cultivation in India", in D. N. Majukdar (ed.), *Shifting Cultivation in North-East India*, Omsons Publications, Guwahati-New Delhi (1990).

[4] Large trees are left behind, for shade, and also to shorten the regeneration period. Pinkaew Laungaramsri, "Swidden Agriculture in Thailand: Myths, Realities and Challenges", in Christian Erni (ed.), *Indigenous Affairs: Shifting Cultivation*, International Work Group for Indigenous Affairs, Copenhagen (2005).

Asia, the first crops are usually vegetables, gourds and beans, and later rice and cotton.

4. Once the harvest is over, the cultivators enjoy a few months of rest, indulge in feasts and celebrations and pursue other forms of economic activity, including fishing, hunting and trapping, the sale of farm produce in markets and seasonal labour.

5. In Africa, crops vary from one subregion to the other. In North-Eastern Africa, the most common crops are cereals (wheat, maize and soya) and rice, whereas seasonal harvests in sub-Saharan Africa include maize, groundnuts, beans and vegetables. In South America and parts of the Caribbean and Central America, crops vary based on the options and variability of crops chosen by indigenous peoples. These crops are selected based on climate and the suitability of crops to varying weather and climatic conditions. In parts of South America indigenous peoples cultivate manioc, cassava, maize and soya, which are used as staple foods for the community, while at the same time producing some by-products for sale in external markets. In some instances such products are sold locally within indigenous communities.

6. The cycle of shifting cultivation varies with different climatic conditions. In the Chittagong Hill Tracts in Bangladesh, and in several other parts of South Asia, cutting of vegetation starts in January and February, burning in March and April and planting in April and May. In Southeast Asia, this varies by a few weeks to months, depending on the latitude, longitude and elevation of the area. In Central Africa, where the rainy season is through October to May, the preliminary work involved in shifting cultivation starts in August, with the cutting of vegetation. Burning takes about one or two weeks after a drying period of at least a few weeks, and planting lasts for about a month and a half. Crops are harvested in January and February, although the cycle of shifting cultivation depends to some extent on the seasons. For example, in Africa, the north and the south have four seasons whereas the east, central and western areas only have two seasons (the dry and rainy seasons). In addition, the populations of the Saharan and the Sahel areas of the continent, including indigenous peoples, do not practise shifting cultivation because of the desert and the droughts that affect those regions. With climate change, deforestation and desertification, shifting cultivation is less and less productive in some parts of Africa. In the past three years, harvests have decreased owing to the low annual rainfall in the east. As a consequence, thousands of people, many if them in Kenya, are facing starvation and famine.

7. Indigenous peoples in Central and South American total an estimated 40 million, of which nearly 90 per cent depend on land and natural resources to sustain their livelihoods. In Bolivia (Plurinational State of), Ecuador, Guatemala, Mexico and Peru, indigenous peoples make up a substantial proportion of the population. Elsewhere in the region, aggressive colonial expansion has caused the demographic collapse of indigenous peoples, who today constitute minority populations. Indigenous peoples throughout the continent experience high levels of poverty, and they are likely to be poorer than the non-indigenous population. Pervasive poverty is often exacerbated by insecure and inadequate land tenure arrangements for indigenous families and communities.

8. Throughout Latin America, indigenous lands and territories in both the highlands and lowlands are under pressure from commercial agribusiness, mining,

plantation forestry, industrial logging, transport networks, oil and gas pipelines and overgrazing. These factors have contributed to a reduction in the amount of land used for traditional shifting cultivation. These destructive pressures may also be part of both legal and illegal operations, which result in the fragmentation of indigenous territories, the degradation of the resources base, decreased food security, worsening health, higher levels of poverty, and, as a result, contribute to the loss of indigenous cultures.

9. As mentioned above, traditional forms of shifting cultivation do not usually involve the use of commercial fertilizers and pesticides. Ash is the main fertilizing agent, while certain species of fruit plants (hibiscus safderifa, pigeon pea and some species of beans) and flowering plants (marigold and cosmos) act as pesticides, covering crops with nitrogen-fixing qualities. In the past, this form of cultivation was practised in parts of Europe, where crops were generally grown for domestic, household and community use. However, with the expanding market that now links hitherto remote and isolated communities in different parts of the world, increasingly, crops, including cotton, grains, vegetables and spices, as well as timber, are being produced for the market. In addition, banana, cassava and tobacco now figure among other marketable crops grown by indigenous peoples in African forest communities.

10. In South and Central America, indigenous peoples generally produce crops to support their families, while surplus and excess products are either marketed locally or sold in various parts of the country. In South America, specifically in Guyana, indigenous peoples mostly cultivate manioc, cassava, potatoes, maize, bananas, eddoes and other crops. These products are sometimes sold locally, but also to suppliers who have connections to external markets. In recent years cassava has been in high demand, because farine, produced from cassava, supplements rice, which is another main agricultural product of Guyana. Farine has been in high demand, particularly in the mining areas of Guyana.

II. The plurality of traditions and practices of shifting cultivation

11. The growing market orientation of newer modes of shifting cultivation in some parts of the world has led to an increase in the use of processed pesticides and processed fertilizers. In addition, there are some basic as well as nuanced differences in the way the practice has evolved in different places, including the length of the fallow period, planting methods, experimentation with new and introduced species of seed varieties, modes of distribution of lands, soil erosion control and community activities. In Thailand, there is a difference between pioneering methods involving the cultivation of long-growth forests in contrast to rotational agriculture, involving the cultivation of long-rotation fallows that are consecutively and rotationally cropped, keeping in mind the dangers of soil erosion, land degradation, forest depletion and yields. Some of the more sustainable forms of rotational agriculture are practised by the indigenous Karen peoples in northern Thailand.[5] Similarly, in the Chittagong Hill Tracts, the highland indigenous peoples, such as the Bawm and Panghkhua, practise ecologically friendly and sustainable

[5] See Pinkaew Laungaramsri, "Swidden Agriculture in Thailand: Myths, Realities and Challenges", in Christian Erni (ed.), *Indigenous Affairs: Shifting Cultivation*, International Work Group for Indigenous Affairs, Copenhagen (2005).

modes of cultivation, in contrast to the lower altitude hill peoples, who tend to be more market oriented, with shorter fallow periods, greater use of processed fertilizers and pesticides and, consequently, lower harvests and increased land degradation.

12. The basic approach to shifting cultivation in Africa does not differ markedly from that in other regions of the world. In fact, even though traditional farming techniques have been substantially modified with the growing marketization of swidden crops and the increased use of commercial pesticides and fertilizers, both in Africa and in Asia many communities are reverting to traditional modes of cultivation, eliminating their use. The increasing costs of pesticides and fertilizers, and the loss in soil fertility, are among the reasons for this trend.[6]

13. In parts of South and Central America, the use of inorganic fertilizer has been the norm in land cultivation. The use of commercialized pesticides contributes to environmental damage and has an impact on local biodiversity. Shifting cultivation has been managed through the use of normal slash-and-burn practices. Clearing a piece of land involves the cutting of most large trees, followed by a rest period of 4 or 5 days before the land is burned. The burnt matter acts as the fertilizer in most instances. In some cases, where there is need to utilize the savannah, a small amount of organic fertilizer is applied, although on a controlled basis. Cow manure is used to fertilize the land, particularly for the cultivation of cash crops and vegetables.

III. Shifting cultivation and the social integrity of indigenous peoples

14. The social, political, cultural and other traditions within societies practising shifting cultivation include collective and consensual modes of political decision-making and social dispute resolution, as well as community collaboration and safety-net systems. These social systems include the transfer of surplus farm produce from families with relatively larger harvests to families with more modest harvests. In addition, customs have evolved whereby families work collectively and rotationally on each others' farms, thereby substantially decreasing the overall physical effort and the amount of time that they would have had to expend had they worked on their farms on their own. Other customs include a system of loaning individual or family labour to other individuals or families experiencing a temporary shortage of farm hands. Such loaned labour is repaid on the same basis. Among the Chakma people in the Chittagong Hill Tracts there is a custom, known as "maleya" whereby able-bodied adults contribute a day's labour to one-parent families or families with sick, elderly or disabled members. Other customs include the provision of food to pregnant women and new mothers after childbirth.

15. The collective and generally democratic, consensual and consultative modes of decision-making over the distribution of swidden plots and the sharing of farm produce are often employed, with contextual variations, in other crucial decision-making processes in the political, juridical and social spheres. In the highland communities of the Chittagong Hill Tracts, for example, such processes are

[6] Site visits and discussions of one of the co-authors with farmers, Chittagong Hill Tracts, Bangladesh, 2011-2012.

employed in times of crises, wars and social conflicts, family or individual disputes, natural calamities and disasters.

16. Succession to chieftainships and other traditional headships were, and often still are, seen to follow similar consensual and consultative mechanisms. In the case of dispute resolution, customary law-oriented administration systems may employ various methods of arbitration, mediation and rehabilitation as ways of providing recourse to justice.[7] In contrast, mainstream governmental justice systems may be adversarial, punitive, time-consuming and costly, and they can leave conflicts unresolved, disputants penalized and victimized and offenders unrehabilitated or undeterred. These factors adversely affect the social cohesion and integrity of indigenous communities.

17. Although gender-biased practices in political and social decision-making are often a serious problem among indigenous communities, today traditional social norms relating to succession to political and social office, succession to land and property, marriage customs, divorce, child custody and related matters, are far less likely to be differentiated according to gender than mainstream and externally imposed political and social systems. While social hierarchies are not always absent in traditional societies practising shifting cultivation, including matrilineal communities, social divisions and distinctions between patricians and plebeians, between the elite and the disadvantaged, which are common in many mainstream communities, are generally far less pronounced. As a result, many indigenous communities experience more social cohesion and harmony, and discord is limited.

18. To summarize, in cases where communities practising shifting cultivation have been cut off from this way of life, their social integrity and corresponding political, economic and cultural integrity has often been violently and structurally disrupted, leaving them in a far more disadvantaged position than they would have been otherwise. This often happens when such communities have been coerced by governments into giving up slash-and-burn agriculture for other forms of work without their free, prior and informed consent, and without the necessary time or the provision of adequate information, capital, health care or social services during the transitional period. Such sudden change leads to increased poverty and to a vicious cycle of displacement, as well as to a consequent unsustainable use of swidden and forest lands, which degrades the environment. Depriving indigenous communities of their inherent right to practise this form of cultivation, in accordance with their laws, customs and usages and in line with international human rights norms and standards, is a sure way to disrupt sustainable land use patterns and to permanently destroy the social cohesion of indigenous peoples and their communities, including their political, economic and cultural identity and integrity as distinct peoples. Unfortunately, such disruptive and discriminatory governmental programmes continue unabated in South and Southeast Asia and in other places.[8]

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[7] Raja Devasish Roy, *Traditional Customary Laws and Indigenous Peoples in Asia*, Minority Rights Group International, London (March 2005).

[8] See Mi Dze, "State Policies, Shifting Cultivation and Indigenous Peoples in Laos", in Christian Erni (ed.), *Indigenous Affairs: Shifting Cultivation*, International Work Group for Indigenous Affairs, Copenhagen (2005).

IV. Shifting cultivation and the cultural integrity of indigenous peoples

19. The social, political, cultural and other traditions within these indigenous communities are closely intertwined with their practice of shifting cultivation. Their music, dance, literature, religion and spirituality have all been shaped by the cropping cycle and their interaction with nature and living beings: dances commemorate hunting and worship of gods and spirits; ballads recount history, myths and legends; and stories of valour, love and romance are often combined with humour. Shamans write the formula for their traditional medicine on palm leaves or pass them on to disciples through oral transmission.

20. Spiritual traditions in such societies are shaped by patterns of cultivation and the cycles of nature. The worship of gods and spirits, closely related to hills, mountains, rivers, streams, forests and grasslands, are intertwined with this way of life. Respect for nature and taboos against the fouling of rivers and streams, and the protection of fragile micro-ecosystems against the dangers of forest degradation, soil erosion and the drying up of water sources are in many cases an integral part of religious and spiritual traditions of these communities.

21. It is evident that areas of the highest biological diversity often coincide with areas with a rich mixture of languages and cultures, and that knowledge of plants and animals is reflected in the languages of indigenous peoples and their communities. In this regard, it is documented that the decline of swidden cultivation is often accompanied by the loss of languages, biodiversity, cultural traditions and social norms — a loss which threatens the very identity and integrity of indigenous peoples.

22. Traditional weaving methods are widely practised in communities involved in shifting cultivation and cultivation in forested areas in Asia. The tools of weaving, and the dyes used for such cloth come from nearby forests, wood bark, bamboo, vine and creepers. Cotton is also grown by indigenous cultivators in Asia, although it is in decline owing to growing commercialization of the economies of their communities.

23. In indigenous communities soil health is generally believed to be related to the goodwill of the ancestors. Places of worship and veneration are often frequented by indigenous peoples before they cut down trees in order to seek the blessings of the ancestors against possible blight, and to prevent the too early or too late arrival of the rains. Ceremonies, prayers and propitiations, which are part of the pattern of worship, are made to ensure good rainfall, to prevent natural disasters (drought, locusts, flooding, devastation of plants by animals) and to maximize the harvest. The African Commission on Human and Peoples' Rights recently ruled that the eviction of the Endorois indigenous peoples from their ancestral lands around Lake Bogoria by Kenyan authorities has prevented them from practising their religion, including ancestral worship, because the spirits of the ancestors are believed to reside in the home area.

24. Indigenous peoples throughout Central and South America believe that they are connected to the land in a holistic way, and, in spite of numerous pressures, lands occupied by indigenous peoples in many countries have been recognized by the State as their property. In Guyana, for example, indigenous peoples have been given legal right to their lands through the demarcation and titling of the land by the

Government. Indigenous peoples now have the responsibility and the right to manage and control their own land under a legally established body linked to the Government, which governs their welfare. This measure, to a large extent, has preserved the tradition of shifting cultivation, which is being practised in an environmentally friendly manner so as to ensure that the land is utilized for the purpose of maintaining indigenous peoples and for producing agricultural products to be sold locally and, as necessary, to external markets. In some indigenous communities, however, land has been encroached upon by non-indigenous people for the purposes of mining and commercial logging. While the forest has been exploited for many years, there is still a high degree of natural regeneration that can be used for cultivating the land for the use of future generations.

25. A few indigenous communities in Guyana have taken steps to map out their territories, creating management plans, with the intention of using the land for conservation purposes, sustaining the cultural connection of the peoples to the land and safeguarding their natural resources from external invaders. The plans will be sent to the Government for approval. Indigenous peoples have taken this initiative because they realize that natural resources are under pressure and that protective measures are needed. Over the years, some communities have had problems with mining on or in close proximity to their lands, an activity which threatens their cultural integrity and also creates a risk of damaging the environment that they depend upon. Furthermore, such risks to the environment infringe on the right of indigenous peoples to utilize the resources found on their lands and weaken the cultural integrity of their communities.

V. Shifting cultivation, forest management and biodiversity

26. The practice of shifting cultivation is closely connected to forest management and biological diversity since it involves cultivation on forested land of differing levels of growth and regeneration. Access to forested land is therefore essential for slash-and-burn cultivation. As a general rule, rotational cropping ensures that land used for shifting cultivation regenerates quickly. The animals and birds that come to feed on the crops, roots, stems and flowers promote the pollination of flowers and the regeneration of trees from the seedlings and pollens they leave behind. Forested lands with high biological diversity nourish heathy grain, vegetable and fruit crops and boost the size of crop yields. It has also been noted that species diversity is usually richer in secondary forests than in stands of natural forests. In addition, lands used for shifting cultivation may regain lost fertility from the excreta and urine of animals and birds.

27. In most communities, forest conservation goes hand in hand with swidden cultivation. Apart from rotational cropping of forested lands, most of these communities also earmark forests for conservation, water resources protection and as a repository of food and medicinal plants.

VI. Myths and misinformation surrounding shifting cultivation

28. There is insufficient understanding of the practice and culture of swidden cultivation, including a widely held view that shifting cultivation is a major cause of deforestation, soil erosion and loss of biodiversity. There are certain forms of

shifting cultivation, including a drastic shortening of fallow and rotational cycles caused, inter alia, by population rise, displacement and impoverishment, which may have adverse consequences for forest management and biodiversity. These, however, are the exception, rather than the norm. In most cases, indigenous communities ensure they have sufficient forest cover, both for use as swidden lands and for forests. As observed in a case study on shifting cultivation in Nepal: "Government and development organizations, however, find [shifting cultivation] unproductive and wasteful of natural resources and see it as a sign of underdevelopment. This has resulted in a hostile policy environment, which either discourages shifting cultivation or ignores its existence. Recent research, however, has found that the unsupportive policy environment is the main reason for increased poverty and land degradation in shifting cultivation areas, rather than inappropriate land use by the farmers themselves."[4] A study in Thailand in the late 1960s by a German anthropologist found similar views on the part of policymakers, which were not backed by quantitative information and confirmation. A more recent study on shifting cultivation holds that the prevalence of such views is still widespread in Thailand and its neighbouring countries in South and Southeast Asia.[5] Much of this debate is based upon the myth of a pristine nature constructed by conservationists who view human intervention as necessarily harmful. Deconstructing such a view, renowned ecologist and human rights worker, Madhu Sarin, says, "Let's not forget that valuable agro-biodiversity has also been created through centuries of human interaction with pristine nature ... one of the major gifts of [shifting cultivation] over the centuries has been this contribution of agro-biodiversity and the indigenous knowledge that produced it".[9]

29. On sloping lands, the dibbling method of cultivation causes little soil erosion, compared with the plough, spade and hoe methods, which expose the loosened soil to heavy rainfalls and consequent nutrient depletion and landslides. The permanent conversion of swidden lands into plantation forestry and plantations of horticultural crops like pineapple, coffee, tea, rubber or other monocrops inevitably results in permanent deforestation and biodiversity loss.

VII. International legal framework

30. International human rights norms and standards directly and indirectly address the rights of indigenous peoples to protect their forms of subsistence, maintain their livelihood and food security, own and manage their traditional lands and protect their identity and social and cultural integrity, as well as their economic, civil and political rights. Some of the most relevant provisions of international human rights law pertaining to indigenous peoples and their forms of subsistence are discussed briefly below.

A. United Nations Declaration on the Rights of Indigenous Peoples

31. The United Nations Declaration on the Rights of Indigenous Peoples acknowledges several rights that are crucial to communities practising shifting

[9] Elisabeth Kerhoff and Christian Erni (eds.), "Shifting Cultivation and Wildlife Conservation: A Debate", in Christian Erni (ed.), *Indigenous Affairs: Shifting Cultivation*, Work Group for Indigenous Affairs, Copenhagen (2005).

cultivation, including: their right to maintain and strengthen their distinct political, legal, economic, social and cultural institutions (article 5); their right to not be removed from their lands without their free, prior and informed consent (article 10); their right to be secure in the enjoyment of their own means of subsistence and development, and to engage freely in all their traditional and other economic activities (article 20); and their right to maintain their traditional medicines and their health practices, including the conservation of their vital medicinal plants, animals and minerals (article 24); to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard (article 25); their right to the conservation and protection of the environment and the productive capacity of their lands, territories and resources (article 29); and their right to maintain, control, protect and develop their cultural heritage, traditional knowledge and traditional cultural expressions, as well as the manifestations of their sciences, technologies and cultures, including human and genetic resources, seeds, medicines, knowledge of the properties of fauna and flora and oral traditions (article 31).

B. ILO Convention No. 169

32. ILO Convention No. 169 on indigenous and tribal peoples of 1989 contains several provisions relating to the land and territorial rights of indigenous peoples, as well as their cultural and other rights. The Convention obliges concerned Governments to provide "special importance for the cultures and spiritual values of the peoples concerned of their relationship with the lands or territories, or both as applicable, which they occupy or otherwise use, and in particular the collective aspects of this relationship" (article 13). It further recognizes the "rights of ownership and possession of the peoples concerned over the lands which they traditionally occupy" (article 14), including the rights of shifting cultivators (article 14). Indigenous peoples' right to manage and conserve the natural resources of their lands is also recognized (article 15), as are their rights to traditional economic activities (articles 19 and 23) and their right to the protection of their spiritual values and practices (article 5).

C. ILO Convention No. 107 and ILO Recommendation No. 104

33. Like ILO Convention No. 169, ILO Convention No. 107 (on indigenous and tribal populations of 1957) contains several safeguards on indigenous peoples' land and resource rights, including: the recognition of their land ownership rights, including collective rights (article 11); measures to prevent the alienation of their lands by non-indigenous peoples (article 13); and "the provision of more land for these populations when they have not the area necessary for providing the essentials of a normal existence, or for any possible increase in their numbers" (article 14). ILO Recommendation No. 104, on indigenous and tribal populations, which supplements the provisions of Convention No. 107, obliges concerned Governments to provide "a land reserve adequate for the needs of shifting cultivation so long as no better system of cultivation can be introduced" (article 3). Article 6 states that "mortgaging of land owned by members of the populations concerned to a person or body not belonging to these populations should be restricted", and article 8 provides

that, where appropriate, "modern methods of cooperative production, supply and marketing should be adapted to the traditional forms of communal ownership and use of land and production implements among the populations concerned and to their traditional systems of community service and mutual aid".

D. ILO Convention No. 111

34. ILO Convention No. 111 (on discrimination in employment and occupation) also addresses the rights of indigenous shifting cultivators. The Convention seeks to remove discrimination in employment and occupation based, inter alia, on race, colour or sex. On the basis of the Convention, shifting cultivators may exercise the right to practise a traditional occupation and the right to freely choose an occupation (in this case, shifting cultivation). In the case of the rights of shifting cultivators, the provisions of Convention No. 111 should be read with the provisions of ILO Convention No. 169 and No. 107 (including Recommendation No. 104), as appropriate.

VIII. Recommendations

35. The following recommendations are addressed to different rights-holders and stakeholders.[10]

States

36. States should ensure that indigenous peoples have access to the lands that they traditionally or otherwise occupy and use and allow them to pursue their subsistence activities, thus protecting their social and cultural integrity and their enjoyment of their economic, civil and political rights. This would entail formal recognition of indigenous peoples' land and natural resource rights, including their collective rights, by providing tenurial security, in line with the provisions of ILO Convention No. 169, ILO Convention No. 111, ILO Recommendation No. 104 and the United Nations Declaration on the Rights of Indigenous Peoples.

37. As a means of ensuring the survival of the customs and the traditional institutions of indigenous peoples, States should endeavour to delineate the lands belonging to indigenous peoples on the basis of their customary land laws and ensure recognition by granting inalienable land titles on a collective basis.

38. States should discontinue all sedentarization and other programmes that coerce indigenous peoples to forsake shifting cultivation for other modes of cultivation without their free, prior and informed consent. Alternative modes of cultivation should ensure food security, livelihood security, health security, educational security and forest conservation and other safeguards. Policies aimed at discouraging shifting cultivation should be revoked and revised, in consultation with indigenous peoples.

[10] Some of the recommendations are similar to or partially or wholly based on recommendations contained in Aryal and Kerkhoff (2008) (see footnote 1) and Kerhoff and Erni (2005) (see footnote 9).

39. States should formally recognize shifting cultivation as a traditional occupation, and a means of subsistence for indigenous peoples that is closely related to their identity and integrity. This age-old, time-tested and well-integrated farming system should not be banned or discouraged, as this may have a negative impact on the development and food security needs and the environmental and conservation activities of indigenous communities.

40. States should take effective measures to stop all discriminatory acts targeted at indigenous peoples based upon myths and misunderstandings of the practice of shifting cultivation and related social, cultural and other norms and traditions. This may include support for objective and appropriate research about this form of cultivation and its importance to the identity and social and cultural integrity of indigenous peoples.

41. States should strengthen the role of indigenous peoples in decision-making on development, the management of natural resources and land administration, including the formal recognition of, and capacity-building for, indigenous peoples' customary institutions.

Permanent Forum on Indigenous Issues

42. The Permanent Forum on Indigenous Issues should give high priority to the practice of shifting cultivation in all relevant agenda items during its annual sessions in order to help protect the social, cultural, economic and political integrity of indigenous peoples, including under the agenda items on economic and social development, culture and human rights. Discussions on this subject should be supplemented by intersessional and other follow-up activities in partnership with indigenous peoples, States, United Nations agencies, funds and programmes and other relevant institutions and organizations.

43. In partnership with indigenous peoples, other United Nations agencies, States, research institutions and non-governmental organizations, the Permanent Forum should organize, sponsor or support international and regional seminars, workshops, symposia and consultations on the different aspects of shifting cultivation related to the socio-cultural identity and integrity of indigenous peoples.

United Nations agencies

44. Relevant United Nations agencies, funds and programmes, including FAO, the International Fund for Agricultural Development (IFAD), ILO, the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Institute for Training and Research (UNITAR), the United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) and the World Bank, should recognize the importance of this form of cultivation to the identity, integrity, livelihood security and sustainable development needs of indigenous peoples. Corrective measures should be taken, as appropriate, to deal with discriminatory attitudes against indigenous peoples who practise shifting cultivation, including through changes to existing funding, programmatic and policy measures and activities.

Other intergovernmental institutions

45. At the regional level, intergovernmental institutions should establish a focal point on indigenous issues relating to the practice of shifting cultivation and the cultural integrity of indigenous peoples.

Non-governmental organizations

46. Non-governmental organizations, including those with special status or other formal affiliation with the United Nations, should seek to remove all discriminatory practices aimed at indigenous peoples who practise shifting cultivation and should seek to protect their rights, including their right to their occupation and livelihood of choice, land and resource rights and the right to sustainable development and conservation.

Academic institutions

47. Academic institutions should undertake, sponsor or otherwise support objective, unbiased and exhaustive research and study on shifting cultivation and its close relationship to the identity and the integrity of indigenous peoples, their land and resource rights, their right to sustainable development and conservation. Such research and study should examine and present indigenous peoples' traditional and other knowledge, traditions and practices, on the understanding that these communities possess traditional scientific knowledge on the use of their lands and natural resources, as recognized in the Programme of Action for Sustainable Development (Agenda 21).

Indigenous peoples, their institutions, organizations and networks

48. Indigenous peoples and their institutions, organizations and networks should document multidisciplinary cases of shifting cultivation that are crucial to protecting the identity and socio-economic integrity of indigenous peoples and should disseminate that information in their communities, to States, entities of the United Nations system, academic institutions and non-governmental organizations.